CLAIMS:

1. A storage device for storing data on a recording medium (40) by using allocation classes for optimizing storage and retrieval of said data based on properties of their content, said device comprising:

a) discriminating means (320) for discriminating a type of said data based on a predetermined property of said data;

b) tracking means (340) for tracking a usage pattern for a discriminated type of said data; and

c) class selection means (330) for selecting an allocation class used for storing said discriminated type of data, based on said usage pattern.

2. A device according to claim 1, wherein said discriminating means (320) is arranged to discriminate said type of said data based on at least one of a file extension, a kind of data source, and a file size of said data.

3. A device according to claim 1 or 2, wherein said recording medium is an optical disc (40).

4. A device according to claim 1 or 2, wherein said class selection means (330) is arranged to predict said usage pattern for a predetermined file extension.

5. A device according to claim 1 or 2, wherein said storage device comprises an optical disc recording device (30).

6. A device according to claim 1,2 or 4, wherein said class selection means (330) is arranged to select a best effort allocation class for files with a first file extension indicating a still picture, a low rate stream allocation class for files with a second file extension indicating an audio file, and a high rate stream allocation class for a third file extension indicating a video file.

7. A device according to any one of the preceding claims, further comprising buffer means (310) for caching said data.

8. A device according to claim 7, wherein said class selection means (330) is arranged to assume a video file if said buffer means (310) indicates an overflow before the end of file has been stored.

9. A device according to claim 1, 2, 4 or 6, wherein said class selection means (330) is arranged to select a volatile file allocation class if said usage pattern indicates a writing frequency greater or equal to a predetermined threshold.

10. A method of selecting an allocation class used for storing data on a recording medium (40), said method comprising the steps of:

a) discriminating a type of data based on a predetermined property of said data;

b) tracking a usage pattern for a discriminated type of said data; and

c) selecting said allocation class based on said usage pattern.

11. A method according to claim 10, wherein said predetermined property comprises at least one of a file extension, a kind of data source, and a file size.

12. A method according to claim 10 or 11, further comprising the steps of predicting said usage pattern for a predetermined file extension.

13. A method according to any one of claims 10 to 12, wherein said allocation class is selected from a set of allocation classes comprising a best effort allocation class, a high rate stream allocation class, a low rate stream allocation class, a volatile file allocation class, and a non-volatile file allocation class.